UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P O Box 1450 Alexandria, Virgima 22313-1450 www.usplo.gov

DATE MAILED: 03/26/2009

#### NOTICE OF ALLOWANCE AND FEE(S) DUE

65913 7590	03/26/2009	03/26/2009		EXAMINER		
NXP, B.V.				PATEL, NIRAV B		
NXP INTELLECTUAL PROPERTY DEPARTMENT				ART UNIT	PAPER NUMBER	
M/S41-ST			· · · · · · · · · · · · · · · · · · ·			

1109 MCKAY DRIVE SAN JOSE, CA 95131

 APPLICATION NO.
 FILINO DATE
 FIRST NAMED INVENTOR
 ATTORNEY DOCKET NO.
 CONFIRMATION NO.

 10/533/515
 05/02/2005
 Gerald Eckert
 DE2/02/45 US
 4545

 $\hbox{TITLE OF INVENTION: METHOD, DEVICE AND COMPUTER PROGRAM FOR DETECTING POINT CORRESPONDENCES IN SETS OF POINTS \\$ 

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	06/26/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 1SI. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

#### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

#### PART B - FEE(S) TRANSMITTAL

# Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

INSTRUCTIONS: This appropriate. All further indicated unless correcte maintenance fee notificat	form should be used I correspondence including d below or directed off tions.	or tran ig the l icrwise	smitting the ISSU Patent, advance or in Block 1, by (a	TE FEE and PUBLICAT ders and notification of a) specifying a new corre	ION FEE (if requesting reactions in the contract of the contra	ired). I vill be and/o	Blocks 1 through 5 st mailed to the current (b) indicating a sepa	hould be completed where correspondence address as trate "FEE ADDRESS" for
	ENCE ADDRESS (Note: Use B	ock 1 for	any change of address)	Not Fee pap bay	e: A certificate of (s) Transmittal. The ers. Each additional e its own certificate	mailing is certiful l paper of ma	can only be used fo icate cannot be used f , such as an assignme line or transmission.	r domestic mailings of the or any other accompanying nt or formal drawing, must
M/S41-SJ	7590 03/26 CTUAL PROPERT		PARTMENT	I be	Cer	tificate	of Mailing or Trans	
1109 MCKAY E SAN JOSE, CA								(Depositor's name)
				_				(Signature)
				L				(Date)
APPLICATION NO.	FILING DATE			FIRST NAMED INVENTOR	:	ATTO	RNEY DOCKET NO.	CONFIRMATION NO.
10/533,515	05/02/2005			Gerald Eckert			DE02 0245 US	4545
				RAM FOR DETECTING				
APPLN, TYPE	SMALL ENTITY	IS:	SUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSU	E FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO		\$1510	\$300	\$0		\$1810	06/26/2009
EXAM	INER		ART UNIT	CLASS-SUBCLASS	1			
PATEL, N	NRAV B		2435	713-176000	-			
"Fee Address" indi PTO/SB/47; Rev 03-0 Number is required.  3. ASSIGNEE NAME A	ondence address (or Cha 3/122) attached. ication (or "Fee Address 2 or more recent) attach ND RESIDENCE DAT. ess an assignee is ident h in 37 CFR 3.11. Comp	nge of ' ' Indicated. Use	Correspondence  stion form of a Customer  E PRINTED ON 1	2. For printing on the (I) the names of up to cot agents OR, alternating (2) the name of a sing registered attorney or 2 registered patent atteitsed, no name will be THE PATENT (print or ty data will appear on the 1 a substitute for filing an (B) RESIDENCE: (CIT!	o 3 registered pater vely, le firm (having as a agent) and the nam rmeys or agents. If printed. pe)	memb es of u no nan	er a 2 p to er is 3	ocument has been filed for
Please check the appropri	iate assignee category or	catego			Individual 🗖 Co	orporati	on or other private gro	oup entity Government
Publication Fee (N	o small entity discount j	ermitte	ed)	Payment by credit ca				
Advance Order - #	of Copies			The Director is hereb overpayment, to Depo	y authorized to char osit Account Numb	ge the	required fee(s), any de (enclose a	ficiency, or credit any n extra copy of this form).
	s SMALL ENTITY state	ıs. See	37 CFR 1.27.	b. Applicant is no lor				
NOTE: The Issue Fee and interest as shown by the r	d Publication Fee (if req ecords of the United Sta	uired) v tes Pate	vill not be accepted ent and Trademark	from anyone other than Office.	the applicant; a regi	stered	attorney or agent; or th	ne assignee or other party in
Authorized Signature					Date			
Typed or printed name					Registration N	lo		
This collection of informan application. Confident submitting the completed this form and/or suggests Box 1450, Alexandria, V Alexandria, Virginia 223	ation is required by 37 C tiality is governed by 35 I application form to the ons for reducing this bu irginia 22313-1450. DC 13-1450.	FR 1.3 U.S.C. USPT den, st NOT	11. The information 122 and 37 CFR O. Time will vary sould be sent to the SEND FEES OR O	on is required to obtain or 1.14. This collection is es depending upon the indi e Chief Information Offic COMPLETED FORMS T	retain a benefit by t timated to take 12 p vidual case. Any co er, U.S. Patent and O THIS ADDRESS	he pub minute mmen Trader S. SEN	tic which is to file (and to complete, includin s on the amount of tin nark Office, U.S. Depo D TO: Commissioner	by the USPTO to process) gg gathering, preparing, and me you require to complete artment of Commerce, P.O. for Patents, P.O. Box 1450,

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.



SAN JOSE, CA 95131

## UNITED STATES PATENT AND TRADEMARK OFFICE

#### UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P O Box 1450 Alexandria, Virgima 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE		FILING DATE FIRST NAMED INVENTOR		CONFIRMATION NO.		
10/533,515	3,515 05/02/2005		Gerald Eckert	DE02 0245 US	4545		
65913	7590	03/26/2009		EXAMINER			
NXP, B.V.			PATEL, NIRAV B				
NXP INTELLE	CTUAL F	PROPERTY DE	ART UNIT	PAPER NUMBER			
M/S41-SJ 1109 MCKAY I	DRIVE		2435 DATE MAII ED: 03/26/200	9			

# Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 138 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 138 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

# Application No. Applicant(s) 10/533,515 ECKERT ET AL. Notice of Allowability Examiner Art Unit NIRAV PATEL 2435 -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308. This communication is responsive to 11/19/2008. The allowed claim(s) is/are 1,3,4,6,8,10 and 16. 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). b) ☐ Some\* c) ☐ None of the: a) 🔯 All 1. A Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)). \* Certified copies not received: \_\_\_\_\_. Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient. CORRECTED DRAWINGS (as "replacement sheets") must be submitted. (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached 1) hereto or 2) to Paper No./Mail Date (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d). 6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL. Attachment(s) 1. | Notice of References Cited (PTO-892) 5. Notice of Informal Patent Application 2. Notice of Draftperson's Patent Drawing Review (PTO-948) Interview Summary (PTO-413), Paper No./Mail Date Information Disclosure Statements (PTO/SB/08). 7. Examiner's Amendment/Comment

Paper No./Mail Date

of Biological Material

4. ☐ Examiner's Comment Regarding Requirement for Deposit

9. ☐ Other .

8. X Examiner's Statement of Reasons for Allowance

Application/Control Number: 10/533,515

Art Unit: 2435

# DETAILED ACTION

1. This action in responsive to the communication filed on 11/19/08.

2. Claims 1, 3, 4, 6, 8, 10, 16 are allowed.

# 3. Reasons for allowance: Allowable subject matter:

Each independent claim identifies the uniquely distinct features of "finding of possible matching pairs comprising a point from the first set of points and a point from the second set of points, and finding a maximum number of matching pairs wherein the finding of a maximum number of matching pairs comprises the following steps: combining of two matching pairs at a time into a tuple to form a plurality of tuples, determining an affine map for each tuple, that maps the two points in each matching pair of the tuple onto one another, sorting of the plurality of tuples into a tuple list, creating a search tree on the basis of the tuple list, and deriving a matching result from the search tree, wherein the point from the first set of points and the point from the second set of points are each points of note on fingerprint lines, the first set of points corresponding to a scanned fingerprint, the second set of points corresponding to a reference fingerprint".

The closest prior art of record Ferris, fails to anticipate or render the above underlined limitations obvious. The other prior art of record fails to teach or fairly suggest substantially modifying Ferris with this specific feature in order to arrive at the invention as claimed in detail by the applicant. Application/Control Number: 10/533,515 Page 3

Art Unit: 2435

### Allowable Subject Matter

4. Claims 1, 3, 4, 6, 8, 10, 16 are allowed.

#### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nirav Patel whose telephone number is 571-272-

5936. The examiner can normally be reached on 8 am - 4:30 pm (M-F).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on 571-272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/N. P./

Examiner, Art Unit 2435

/Kimyen Vu/

Supervisory Patent Examiner, Art Unit 2435